

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A driving circuit for improving starting of a hybrid induction motor ~~having a main coil forming a main magnetic field and a auxiliary coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil~~ comprising:

a main coil, the main coil including a first coil and a second coil, the first coil and the second coil being connected in series, the main coil forming a main magnetic field;

an auxiliary-coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil;

a capacitor (Cr) for operation electrically connected between the main coil and the auxiliary-coil; and

a starting and current cutting-off means electrically connected with the capacitor (Cr) for operation, for applying a high starting current to a motor in starting and cutting off the starting current to a low operation current when the motor is operated at a synchronous speed in a normal operation after the starting.

2-5. (Cancelled)

6. (Currently Amended) The driving circuit of ~~claim 5~~claim 1, wherein the starting and current cutting-off means comprises:

a PTC thermistor connected between a connection point of the first and second ~~main~~-coils and power; and

an NTC thermistor (Negative Temperature coefficient Thermistor) connected in series to the first and second ~~main~~-coils.

7. (Currently Amended) The driving circuit of claim 6, wherein the PTC thermistor is turned on in starting and turned off in the normal operation, and the NTC thermistor is turned off in starting and turned on in the normal operation.

8. (Cancelled)

9. (Original) A driving circuit for improving starting of a hybrid induction motor having a cup-shaped rotating magnet rotor rotating at a synchronous speed and an induction rotor inside the magnet rotor, and composed of a main coil and a auxiliary-coil comprising:

a PTC thermistor dividing the main coil into first and second main coils, connected between a connection point of the first and second main coils and

power, turned on in starting of a motor, and turned off in normal operation;
and

an NTC thermistor connected in series to the first and second main coils, turned off in starting of a motor, and turned on in normal operation.

10-13. (Cancelled)

14. (Currently Amended) A method for improving starting of a hybrid induction motor having a main coil forming a main magnetic field and a auxiliary-coil connected in parallel to the main coil and forming a rotating magnetic field corresponding to a magnetic field generated by the main coil comprising the steps of:

when single-phase commercial power is applied thereto, turning on a PTC thermistor (Positive Temperature Coefficient Thermistor) having a low resistance value and turning off an NTC thermistor having a high resistance value to apply a high starting current to a the motor;

starting a magnet rotor by generating a the rotating magnet ~~rotor~~ magnetic field through a capacitor (Cr) for operation, and rotating a cage rotor after the magnet rotor rotates at a synchronous speed; and

after a predetermined time elapses, turning off the PTC thermistor and turning on the NTC thermistor (Negative Temperature Coefficient Thermistor) to apply a low operation current to the motor, and operating an induction rotor.

15. (Original) The method of claim 14, wherein by forming a tap in the main coil, the main coil is divided into a first main coil and a second main coil.

16. (Original) The method of claim 15, wherein the PTC thermistor (Positive Temperature Coefficient Thermistor) is connected between a connection point of the first and second main coils and power, is turned on in starting, and is turned off in normal operation.

17. (Original) The method of claim 15, wherein the NTC thermistor (Negative Temperature Coefficient Thermistor) is connected in series to the first and second main coils, is turned off in starting, and is turned on in normal operation.